

Amendment
Serial No. 09/500,387
Page 3 of 19

In the Claims

Please replace claims 13 and 17 with the amended replacement claims as follows:

1. (Previously Presented) In a communications system utilizing a digital cross-connect system (DCS) element management system (EMS) for managing DCS network elements and a SONET EMS for managing SONET add/drop multiplexer (ADM) network elements, apparatus comprising:

a SONET ring network including a plurality of ADMs, said SONET ring network being managed by said SONET EMS;

a plurality of DCS elements, each of said plurality of DCS elements being managed by said DCS EMS, at least one of said plurality of DCS elements including an ADM that is logically coupled to said SONET network and managed by said SONET EMS, said ADM being coupled to said at least one DCS by a digital link.

2. (Original) The apparatus of claim 1, wherein said DCS EMS and said SONET EMS are coupled to respective DCS and SONET network elements by a data communication network (DCN).

3. (Original) The apparatus of claim 1, wherein said digital link comprises one of an STS-1 and STS-3 digital link.

4. (Original) Apparatus comprising:

a hybrid digital cross-connect system (DCS), said hybrid DCS comprising at least one add-drop multiplexer (ADM) communicating with a DCS port via a digital link;

a SONET ring network comprising a plurality of ADMs including said at

274712-1

Amendment
Serial No. 09/500,387
Page 4 of 19

least one ADM within said hybrid DCS;
said SONET ring network being managed as a ring by a SONET
element management system (EMS); and
said DCS being managed by a DCS EMS.

5. (Original) The apparatus of claim 4, wherein said digital link
comprises one of an STS-1 and STS-3 digital link.

6. (Currently Amended) A hybrid digital cross-connect system
(DCS)/SONET integrated SONET ring structure, comprising:
a plurality of add-drop multiplexers (ADMs) arranged according to a
ring topology and managed as a ring by a SONET element management
system (EMS), wherein at least one of said ADMs forming said SONET ring is
included within an input/output module of a hybrid DCS, ~~said input/output
modules, each of said input/output module further comprising a DCS port~~
operatively coupled to said ADM via a digital link.

7. (Original) The apparatus of claim 6, wherein said digital link
comprises one of an STS-1 and STS-3 digital link.

8. (Original) Apparatus, comprising:
a SONET element management system (EMS), said SONET EMS
being adapted to manage, as a network ring structure, a SONET ring formed
using at least one add-drop multiplexer (ADM) included within a hybrid digital
cross-connect system (DCS).

9. (Previously Presented) The apparatus of claim 8, wherein said
ADM included within said hybrid DCS is decoupled from DCS equipment

274712-1

Amendment
Serial No. 09/500,387
Page 5 of 19

within said hybrid DCS by a digital link.

10. (Previously Presented) The apparatus of claim 9, wherein said digital link comprises one of an STS-1 and STS-3 digital link.

11. (Original) In a communications system comprising a digital cross-connect system (DCS) including a SONET add/drop multiplexer (ADM), a method of utilizing said ADM as a network element within a SONET ring such that said SONET ring may be managed as a homogeneous SONET ring structure by a SONET element management system, said method comprising the steps of:

characterizing said DCS including said ADM as comprising a logical DCS network element and a logical ADM network element, said logical DCS network element communicating with said logical ADM network element via a digital link; and

utilizing said logical ADM network element within said SONET ring being managed as said homogeneous SONET ring structure by said SONET element management system.

12. (Original) The method of claim 11, wherein said digital link comprises one of an STS-1 and STS-3 digital link.

13. (Currently Amended) A method for adapting a communications network comprising the steps of:

identifying each network element within a network to be managed; determining if hybrid DCS/SONET network structures are present in the network, each said hybrid DCS/SONET network structures comprising a DCS element having an ADM that is logically coupled to a SONET network;

274712-1

Amendment
Serial No. 09/500,387
Page 6 of 19

decoupling, from said determined DCS/SONET network structures, those add-drop multiplexers (ADMs) used to form hybrid ring networks; and managing said hybrid ring networks as network ring structures using a SONET element management system (EMS).

14. (Original) The method of claim 13, further comprising the step of: inserting an additional ADM between a hybrid DCS/SONET structure and a hybrid ring utilizing an ADM network element within said hybrid DCS/SONET structure.

15. (Original) The method of claim 13, wherein said DCS network elements and ADM network elements are decoupled via a digital link.

16. (Original) The method of claim 15 wherein said digital link comprises one of an STS-1 and STS-3 digital link.

17. (Currently amended) A method for adapting a communications network comprising the steps of:

identifying each network element within a network to be managed; identifying homogeneous network structures within the network to be managed; identifying non-homogeneous network structures within the network to be managed; determining if hybrid DCS/SONET network structures are present in the network to be managed, each said hybrid DCS/SONET network structures comprising a DCS element having an ADM that is logically coupled to a SONET network; decoupling, from said determined DCS/SONET network structures,

274712-1

Amendment
Serial No. 09/500,387
Page 7 of 19

those add-drop multiplexers (ADMs) used to form hybrid ring networks;
managing, using a DCS element manager, DCS network elements
within said network to be managed; and
managing, using a SONET element manager, ADMs within said
network to be managed, wherein ADMs forming ring structures being
managed as homogeneous network ring structures.

274712-1